

ATARI PCS PERIPHERAL DEVICE DESCRIPTION
(preliminary version)

The outline provided on the next two pages shows the type of information required by the software group to be able to provide firmware support for the engineering group and to be able to evaluate and/or maintain existing PCS controller firmware.

1. Functional description of device (black box specification)

1.1 General description

1.2 Overall system performance

Capacities of media
Organization and format of media
Maximum and average throughput rates
Operating modes and options
Expandability

1.3 Interface specifications

1.3.1 Serial bus interface

Frame formats
Command descriptions
Error handling
Maximum/minimum data rates
Minimum/maximum response times

1.3.2 Serial (communications) interfaces

Communication protocol
Record formats
Command descriptions
Error handling
Maximum/minimum data rates
Minimum/maximum response times
Synchronous/asynchronous operation?
Half-duplex, full-duplex or simplex operation?

1.3.3 Parallel (control) interfaces

Control/sense line sequences
Timing requirements
Error handling

1.4 Operating modes and transient behaviors

Power-up
Hardware/software reset
Normal operating modes
Error responses

1.5 Diagnostic requirements

1.6 Configurations/options supported

2. Hardware description

2.1 General description

2.2 Functional block diagram

2.3 Address assignments

- ROM address space
- RAM address space
- I/O address space
- Interrupt assignments

2.4 I/O interface specification

2.4.1 Serial I/O ports

- Function
- Electrical characteristics
- Control logic description
- Data rates
- Transmit/receive characteristics

2.4.1 Parallel I/O ports

- Function
- Electrical characteristics
- Bit assignments
- Control logic description
- Data rates

2.5 Interrupt specifications

- Function
- Enable/disable logic
- Interrupt sense
- Interrupt clear
- Priority & nesting capabilities